



[Claim(s)]

[Claim 1] It is [ the 30 - 300 weight section and ] [Formula 1] about the acrylate monomers indicated to be the 100 weight sections by the general formula (1) or general formula (2) of (B) following in the urethane acrylate oligomer of the molecular weight 5,000-100,000 which consists of acrylate ester which has the polyurethane oligomer which is the precision machine dexterous liquefied gasket ingredient hardened by the exposure of an activity energy line, and has (A) isocyanate radical in [ two or more ] 1 molecule, and a hydroxyl group (meta), and those mixture.

(C) The precision machine dexterous gasket ingredient characterized by including 0.1 - 5 weight section for a photopolymerization initiator.

[Claim 2] The precision machine dexterous liquefied gasket ingredient indicated to claim 1 characterized by including further the inorganic bulking agent to which high thixotropy nature is made to add.

[Claim 3] The manufacture approach of the precision machine dexterous gasket characterized by what a precision machine dexterous gasket is obtained for by irradiating said breathed-out precision machine dexterous liquefied gasket ingredient, and making it harden an activity energy line after breathing out a precision machine dexterous liquefied gasket ingredient according to claim 1 or 2 in the predetermined location on the front face of a substrate from an X-Y-Z-axis spreading robot's nozzle.

[Claim 4] The manufacture approach of the precision machine dexterous gasket indicated to claim 3 characterized by carrying out high temperature processing of said precision machine dexterous gasket which was made to harden and was obtained.

[Detailed Description of the Invention]

[0001]

[Field of the Invention] About the manufacture approach of the precision machine dexterous liquefied gasket ingredient which will be hardened if activity energy lines, such as ultraviolet rays, are irradiated, and the precision machine dexterous gasket using it, in

mechanical equipment using an X-Y-Z-axis spreading robot, a precision machine dexterous gasket is obtained by irradiating an activity energy line and stiffening it.

[0011] The precision machine dexterous liquefied gasket ingredient used by this invention is easily hardened by irradiating activity energy lines, such as ultraviolet rays, including the component of following (A) - (C).

(A) The urethane acrylate oligomer of the molecular weight 5,000-100,000 which consists of acrylate ester which has the polyurethane oligomer which has an isocyanate radical in [ two or more ] 1 molecule, and a hydroxyl group (meta), the 100 weight sections.

(B) The acrylate monomers shown by the general formula 1 or the general formula 2 and those mixture, the 30 - 300 weight section.

(C) A photopolymerization initiator, 0.1 - 5 weight section.

[0012] (A) The urethane acrylate oligomer of a component prepares urethane oligomer from which the polymerization reaction of the polyol of molecular weight 1,000-3,000, a diisocyanate compound, and the polyhydric alcohol is first carried out, and a chain end serves as an isocyanate radical, and is obtained by making the isocyanate radical which is the chain end of this urethane oligomer, and the acrylate which has active hydrogen (meta) react after that.

[0013] When the molecular weight of urethane acrylate oligomer is ideal and 5,000-100,000 are smaller than this, the endurance as a gasket is missing, and if conversely large, in order that liquid viscosity may go up, trouble occurs from a thin nozzle in the productive efficiency of applying a liquefied gasket ingredient.

[0014] As a polyol component to be used, molecular weight is used for polyester polyol, polyether polyol, polycarbonate polyol, polybutadiene polyol, hydrogenation polybutadiene polyol, etc. of 1,000-3,000 by each.

[0015] On the other hand, as a diisocyanate component, aliphatic series isocyanates, such as alicycle group isocyanates, such as aromatic series isocyanates, such as tolylene diisocyanate, diphenylmethane diisocyanate, p-phenylene diisocyanate, naphthalene diisocyanate, and tolidine di-isocyanate, isophorone diisocyanate, and hydro-diphenylmethane diisocyanate, and hexamethylene di-isocyanate,